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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Attorney Docket No. 03-1097)

In the Application of:

N. Geoffrey Greenberg

Serial No. 10/759,586

Filed: January 15, 2004

For: SEWING THREAD

Before the Examiner  
Hurley, Shaun R.

Group Art Unit:  
3765

TRANSMITTAL LETTER

MAIL STOP APPEAL BRIEF-PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Examiner:

In regard to the above-identified patent application:

1. We are transmitting herewith the attached Response To Notification of Non-Compliant Appeal Brief, and return receipt post card.
2. With respect to fees: No fee is required.
3. Please charge any additional fees or credit over-payments to the Deposit Account No.13-2490.
4. CERTIFICATE UNDER 37 CFR 1.10 (EXPRESS MAIL): The undersigned hereby certifies that this Transmittal Letter and the documents hereinabove listed are being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" being Express Mail No. EV844632507US in an envelope addressed to: MAIL STOP Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 26<sup>th</sup> day of February, 2007.

By: \_\_\_\_\_

David M. Frischkorn  
Reg. No. 32,833



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
(Attorney Docket No. 03-1097)

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Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF**

Dear Sir:

Responsive to the Notification of Non-Compliant Appeal Brief mailed February 8, 2007,  
Applicant submits the following replacement and missing sections pursuant to MPEP 1205.03  
and 37 C.F.R. § 41.37(d).

1. **Summary of Claimed Subject Matter** – replacement that adds only citations to the specification as filed.
2. **Evidence Appendix** – new, but indicating NONE.
3. **Related Proceedings Appendix** – new, but indicating NONE.

Respectfully submitted,

**McDONNELL BOEHNEN  
HULBERT & BERGHOFF LLP**

Dated: 2/26/07

By: 

David M. Frischkorn  
Reg. No. 32,833

## **V. Summary of Claimed Subject Matter**

Presently pending is one independent claim: claim 1.

Claims 1 is directed to an improved 2-ply sewing thread composition characterized by a high degree of twist which is imparted to at least one spun yarn containing 100% staple fibers (see Spec. at pg. 7, lines 1-5), where the twist of the spun yarn is equal to or greater than 4 turns per inch than that of the plied twisted composite and is twisted in the opposite direction of the twisted composite. (see Spec. at pg. 7, lines 5-8).

Various types of sewing threads and the methods of making them are well known in the art. Typically, sewing threads fall into four types; (1) spun threads, (2) core threads, (3) continuous filament threads, and (4) air entangled threads. (see Spec. at pg. 2, lines 12-13). This invention relates primarily to the first type, spun threads. (see Spec. at pg. 6, lines 11-20). In general, all sewing threads are formed from a combination of individual yarns and these yarns are manufactured in differing ways and composed of differing materials. Spun threads are characterized in that the individual yarns or singles are fabricated from small pieces of staple through a drafting and twisting process commonly known as spinning. (see Spec. at pg. 6, lines 11-26). The staple fiber is typically composed of natural fibers or small pieces of synthetic filaments less than 2 inches in length. (see Spec. at pg. 7, lines 14-19).

One advantage of spun threads over core or entangled sewing threads, from a manufacturing or raw material cost point of view, is that spun threads are the least expensive of the three types of threads to manufacture because the cost of staple fiber is much less expensive than that of continuous filaments. (see Spec. at pg. 4, lines 17-20). However, from a performance point of view, i.e., sewability and durability, spun threads are less desirable than threads containing continuous core filaments. (see Spec. at pg. 4, lines 20-22). The differences

are more evident during heaving sewing applications and/or when the thread undergoes abrasive treatment such as occurs in the commercial stone washing of denim jeans. (see Spec. at pg. 4, lines 22-23; pg. 5, line 1). In these environments, spun thread has a tendency to fray or break and generally does not perform as well as threads where the individual yarns or singles contain a continuous filament core. (see Spec. at pg. 5, line 1-4). Accordingly, there exists a need to develop an improved spun thread that contains the less expensive staple but exhibits performance greater than conventional spun thread and more preferably approaches or equals that of core thread. The sewing thread of this invention fulfills this need by imparting a high twist to the individual spun yarns, which is contrary to established manufacturing doctrine, so as to produce a ply twisted composite thread having two yarns, where at least one single yarn is composed of 100% staple fiber. (see Spec. at pg. 6, lines 16-20; pg. 7, lines 1-5). More specifically, the invention requires that at least one spun yarn has a twist imparted to it before combined with the second yarn (which may or may not be a spun yarn). That twist is equal to or greater than 4 tpi compared to the tpi of the twisted composite, which has a twist in the opposite direction of the single twisted spun yarn. (see Spec. at pg. 7, lines 1-5). Such an improved spun thread exhibits performance almost equal to that of a conventional core type sewing thread. (see Spec. at pg. 13, lines 1-6 and the graph).



**APPENDIX B**  
**EVIDENCE – NONE**



APPENDIX C

RELATED PROCEEDINGS - NONE